

[0025] a CDRH3 comprising the sequence set forth in SEQ ID NO: 17;

[0026] a CDRL1 comprising the sequence set forth in SEQ ID NO: 18;

[0027] a CDRL2 comprising the sequence set forth in SEQ ID NO: 19; and

[0028] a CDRL3 comprising the sequence set forth in SEQ ID NO: 20.

[0029] In certain examples, the isolated antibody or antigen binding fragment comprises:

[0030] a CDRH1 comprising the sequence set forth in SEQ ID NO: 3;

[0031] a CDRH2 comprising the sequence set forth in SEQ ID NO: 4;

[0032] a CDRH3 comprising the sequence set forth in SEQ ID NO: 5;

[0033] a CDRL1 comprising the sequence set forth in SEQ ID NO: 6;

[0034] a CDRL2 comprising the sequence set forth in SEQ ID NO: 7; and

[0035] a CDRL3 comprising the sequence set forth in SEQ ID NO: 8.

[0036] In certain examples, the isolated antibody or antigen binding fragment comprises:

[0037] a CDRH1 comprising the sequence set forth in SEQ ID NO: 15;

[0038] a CDRH2 comprising the sequence set forth in SEQ ID NO: 16;

[0039] a CDRH3 comprising the sequence set forth in SEQ ID NO: 17;

[0040] a CDRL1 comprising the sequence set forth in SEQ ID NO: 18;

[0041] a CDRL2 comprising the sequence set forth in SEQ ID NO: 19; and

[0042] a CDRL3 comprising the sequence set forth in SEQ ID NO: 20.

[0043] In a second aspect, the present disclosure provides an isolated antibody or antigen binding fragment thereof comprising:

[0044] a) a VH comprising the sequence set forth in SEQ ID NO: 9 or a sequence having at least 90% identity to SEQ ID NO: 9, and a VL comprising the sequence set forth in SEQ ID NO: 10 or a sequence having at least 90% identity to SEQ ID NO: 10; or

[0045] b) a VH comprising the sequence set forth in SEQ ID NO: 21 or a sequence having at least 90% identity to SEQ ID NO: 21, and a VL comprising the sequence set forth in SEQ ID NO: 22 or a sequence having at least 90% identity to SEQ ID NO: 22.

[0046] In some examples, the isolated antibody or antigen binding fragment comprises:

[0047] a) a CDRH1 comprising the sequence set forth in SEQ ID NO: 3;

[0048] a CDRH2 comprising the sequence set forth in SEQ ID NO: 4;

[0049] a CDRH3 comprising the sequence set forth in SEQ ID NO: 5;

[0050] a CDRL1 comprising the sequence set forth in SEQ ID NO: 6;

[0051] a CDRL2 comprising the sequence set forth in SEQ ID NO: 7; and

[0052] a CDRL3 comprising the sequence set forth in SEQ ID NO: 8; or

[0053] b) a CDRH1 comprising the sequence set forth in SEQ ID NO: 15;

[0054] a CDRH2 comprising the sequence set forth in SEQ ID NO: 16;

[0055] a CDRH3 comprising the sequence set forth in SEQ ID NO: 17;

[0056] a CDRL1 comprising the sequence set forth in SEQ ID NO: 18;

[0057] a CDRL2 comprising the sequence set forth in SEQ ID NO: 19; and

[0058] a CDRL3 comprising the sequence set forth in SEQ ID NO: 20.

[0059] The isolated antibody or antigen binding fragment may comprise:

[0060] a) a VH comprising the sequence set forth in SEQ ID NO: 9 and a VL comprising the sequence set forth in SEQ ID NO: 10; or

[0061] b) a VH comprising the sequence set forth in SEQ ID NO: 21 and a VL comprising the sequence set forth in SEQ ID NO: 22.

[0062] The isolated antibody or antigen binding fragment may comprise:

[0063] a) a heavy chain comprising the sequence set forth in SEQ ID NO: 13 and a light chain comprising the sequence set forth in SEQ ID NO: 14; or

[0064] b) a heavy chain comprising the sequence set forth in SEQ ID NO: 25 and a light chain comprising the sequence set forth in SEQ ID NO: 26.

[0065] In a third aspect, the present disclosure provides an isolated antibody or antigen binding fragment thereof comprising:

[0066] a CDRH1 comprising the sequence set forth as formula (I)

$$\text{YTFTX}_1\text{YWX}_2\text{X}_3 \quad (\text{I});$$

[0067] a CDRH2 comprising the sequence set forth as formula (II)

$$\text{WIGNIX}_4\text{PX}_5\text{X}_6\text{GX}_7\text{X}_8\text{NY} \quad (\text{II});$$

[0068] a CDRH3 comprising the sequence set forth as formula (III)

$$\text{RX}_9\text{GX}_{10}\text{X}_{11}\text{RAMDY} \quad (\text{III});$$

[0069] a CDRL1 comprising the sequence set forth as formula (IV)

$$\text{QSVX}_{12}\text{X}_{13}\text{DVA} \quad (\text{IV});$$

[0070] a CDRL2 comprising the sequence set forth as formula (V)

$$\text{LLIX}_{14}\text{X}_{15}\text{X}_{16}\text{SNRX}_{17}\text{T} \quad (\text{V}); \text{ and}$$

[0071] a CDRL3 comprising the sequence set forth as formula (VI)

$$\text{QQDYSSPX}_{18} \quad (\text{VI}),$$

[0072] wherein:

[0073] X_1 is any amino acid such as a polar or charged amino acid;

[0074] X_2 is any amino acid such as a non-polar amino acid;

[0075] X_3 is any amino acid such as a polar amino acid;

[0076] X_4 is any amino acid such as a non-polar amino acid;

[0077] X_5 is any amino acid such as a non-polar or polar amino acid;